CLAIMS

1.   A method for assigning transcoding channel elements
comprising the steps of:

determining a transcoding channel element type of a
call in a communication system;

finding a board with a digital signal processor (DSP)
of the transcoding channel element type;

selecting the DSP of the transcoding channel element
type of a plurality of DSPs having a greatest number of the
transcoding channel elements in use for transcoding; and

assigning the call to the DSP having the greatest
number of transcoding channel elements in use.

2.   The method for assigning transcoding channel elements
as claimed in claim 1, wherein if the step of finding the
board with the digital signal processor of the transcoding
channel element type is unsuccessful, there is further
included a step of dynamically reassigning a transcoding
channel element type of an idle DSP of a plurality of DSPs of
the board to the transcoding channel element type of the call.

3.   The method for assigning transcoding channel elements
as claimed in claim 1, wherein the step of finding a board
with a digital signal processor of the transcoding channel
element type includes a step of finding the board with DSPs
having a fewest available requested transcoding channel
element types.

4.   The method for assigning transcoding channel elements
as claimed in claim 1, wherein the step of finding a board
with a digital signal processor of the transcoding channel
element type further includes a step of finding a board with
an idle digital signal processor of the transcoding channel
element type of the call.

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5.   The method for assigning transcoding channel elements
as claimed in claim 4, wherein if a board with an idle DSP of
the transcoding channel element type for the call is found,
there is further included a step of assigning the call to the
5   board having a greatest number of idle DSPs of the transcoding
channel element type.

6.   The method for assigning transcoding channel elements
as claimed in claim 4, wherein if the step of finding a board
10 with an idle DSP is unsuccessful, there is further included a
step of finding a board with an empty DSP.

7.   The method for assigning transcoding channel elements
as claimed in claim 6, wherein if the board with an empty DSP
15 is found, there is further included the steps of:
        assigning the call to the board having a greatest
number of empty DSPs;
        selecting one of the DSPs; and
        indicating the empty DSP as being active with the
20 transcoding channel element type for the call.

8.   The method for assigning transcoding channel elements
as claimed in claim 6, wherein if a board with an empty DSP is
not found, there is further included a step of finding a board
25 with an idle DSP of another transcoding channel element type.

9.   The method for assigning transcoding channel elements
as claimed in claim 8, wherein if a board with an idle DSP of
another transcoding channel element type is found, there is
30 further included a steps of:
        reassigning a DSP of the board to the transcoding
channel element type for the call; and
        assigning the call to the DSP of the transcoding
channel element type for the call.
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10.   The method for assigning transcoding channel elements
as claimed in claim 1, wherein there is further included a
step of assigning the call of the transcoding channel element

type to a DSP to completely fill the DSP with active calls
before using another DSP on the board of a same transcoding
channel element type for the call.

5 11. The method for assigning transcoding channel elements
as claimed in claim 1, wherein there is further included a
step of assigning the call to a board having a least number of
available transcoding channel elements of the transcoding
channel element type for the call.

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12.   A method for assigning transcoding channel elements in a communication system, the method comprising the steps of:
        determining a transcoding channel element type of a
5 call;
        finding at least one digital signal processor (DSP) of a plurality of DSPs of the transcoding channel element type for the call;
        dynamically reassigning another transcoding channel
10 element type of the at least one DSP to the transcoding channel element type of the call; and
        assigning the call to the at least one DSP which is reassigned to the transcoding channel element type for the call.
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13.   The method for assigning transcoding channel elements as claimed in claim 12, wherein there is further included a step of selecting the at least one DSP of the transcoding channel element type of the plurality of DSPs, the at least
20 one DSP having a greatest number of transcoding channel elements in use for transcoding.

14.   The method for assigning transcoding channel elements as claimed in claim 12, wherein there is further included the
25 steps of:
        providing a plurality of the plurality of DSPs; and
        selecting a plurality of the DSPs having a fewest number of available transcoding channel elements.

30 15.   The method for assigning transcoding channel elements as claimed in claim 12, wherein there is further included a step of finding a plurality of DSPs with an idle DSP of the channel element type.

35 16.   The method for assigning transcoding channel elements as claimed in claim 15, wherein there is further included a step of assigning the call to a plurality of DSPs having a

greatest number of idle DSPs of the transcoding channel
element type for the call.

17.   The method for assigning transcoding channel elements
as claimed in claim 15, wherein there is further included a
step of determining a plurality of DSPs having at least one
empty DSP.

18.   The method for assigning transcoding channel elements
as claimed in claim 17, wherein if a plurality of DSPs having
the at least one empty DSP is determined, there is further
included steps of:

     assigning the call to a plurality of DSPs having a
greatest number of idle DSPs of the transcoding channel
element type for this call;

     selecting the at least one DSP of the plurality of
DSPs;

     configuring the at least one empty DSP to be an active
DSP of the transcoding channel element type for the call; and

     assigning a call to the at least one empty DSP.

19.   The method for assigning transcoding channel elements
as claimed in claim 17, wherein there is further included a
step of determining a plurality of DSPs with at least one idle
DSP of an other transcoding channel type.

20.   The method for assigning transcoding channel elements
as claimed in claim 19, wherein there is further included the
steps of:

     re-configuring the at least one DSP of the other
transcoding channel element type to the transcoding channel
element type for the call; and

     assigning the call to the at least one DSP.